

KENTUCKY COUNCIL ON  
POSTSECONDARY EDUCATION



# Strengthening Our Capacity to Serve: A Summit on Productivity, Efficiency, and Cost Containment

White Papers & Discussion Notes  
for Breakout Session on

Facilities Construction, Operations,  
& Management

September 13, 2010  
Marriott Cincinnati Airport Hotel  
Hebron, Kentucky



*Kentucky*  
UNBRIDLED SPIRIT™

**Strengthening Our Capacity to Serve:  
A Summit on Productivity, Efficiency, and Cost Containment  
Institutional Planning Group**

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## Kentucky Council on Postsecondary Education

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September 13, 2010

Dear Institutional and Professional Organization Members:

A special thank you is extended to the individuals and groups that spent time over the last several months drafting the white papers and discussion notes for the September 13 Summit on Productivity, Efficiency, and Cost Containment.

As we have all experienced firsthand over the last several years, the austere budget environment demands extra effort and our best ideas in order to produce high-quality graduates, community engagement, and research, all at a lower cost, that will lead to significant improvements in the quality of life and standard of living of all Kentuckians.


The summit is intended to serve both as reminder of the good work we have already done and encourage action on new ideas and innovations moving forward. The summit is not an end, but rather another step in the journey to produce the best educated workforce and citizenry in the nation.

Thank you again for your hard work and continued dedication. We look forward to a series of great conversations.

Sincerely,



Robert L. King  
President  
Council on Postsecondary Education



Doug Whitlock  
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Strengthening Our Capacity to Serve:  
A Summit on Productivity, Efficiency, and Cost Containment

Table of Contents

Facilities Construction, Operations, and Management		Page Number
Ideas submitted by the following groups:		
▪	Kentucky Auxiliary Services Association	1
▪	National Association of State Facilities Administrators	5
▪	Society of College and University Planning	9



**Productivity, Efficiency, and Cost Containment Summit  
Facilities Construction, Operations, and Management  
Self-Supporting Business Operations  
Kentucky Auxiliary Services Association**

**INTRODUCTION**

Auxiliary Services divisions at Kentucky postsecondary institutions provide a variety of support services that are instrumental to the strategic goals of each institution. The success of providing health care, research, instruction, and student services depend on Auxiliary Services.

The Auxiliary Services units for each institution will vary depending on the organizational structure of that particular institution. For example, Auxiliary Services at one institution may have management of the parking and transportation function, while that unit may be incorporated in another area at another institution. Therefore, this paper will address areas of responsibility that are generally included within the typical Auxiliary Services unit.

The usual definition of an Auxiliary Services unit is it must operate by generating sufficient revenues to fund its operational costs. In many cases, Auxiliary Services units will contribute funds back to the institution to offset institutional expenses or provide funds for scholarships. By nature, Auxiliary Services managers must strive toward a strong business model and be highly efficient. Each year, the Auxiliary Services units are expected to do more with fewer resources available. In many cases, we are returning millions of dollars back to the General Fund for the operations of the university. Funds are also reinvested to improve or expand services offered to students.

The practices described herein are believed to be credible cost saving solutions that could alleviate the need to create more space or employ more staff in response to rising student or staff numbers or required access to existing services. Also, we believe that the practices will help to continually evaluate the efficiency and value of the institution's services and programs. Services that are provided by the various Auxiliary Services units at public institutions in Kentucky include student housing, oncampus dining, bookstore services, printing and duplication services, parking and transportation. Services provided by some, but not all institutions, include convention center, central supply center (inventory control), golf club management, arena management, postal services, all card operations, mail and distribution services, child care, vending/concessions, risk management, environmental health and safety, and facilities and laundry. Each of these services provides a benefit to at least some, if not all, of the university community and is integral to the institution's mission. Some examples of specific services offered by Auxiliary Services would include:

**Bookstore Operations**

Providing students with textbooks and supplies at a low cost is vital to keep the student's cost of education affordable. Some institutions manage their bookstore with in-house staff, while some outsource this operation. Both operations provide benefits to students and whether an institution self-operates or outsources depends on the institution. Bookstores work with faculty to develop textbook lists in time to provide students with the lowest cost for textbooks by providing used books, textbook rentals, or debundling textbooks. In the future, we see textbooks and other resources being available by e-books where students will use an electronic reader (iPad or Kindle).

The Higher Education Opportunity Act recently enacted required textbook information become available to students when they are registering for a class. The Auxiliary Services professionals endorsed this legislation as a way to reduce the cost of a student's education.

Textbooks are a large expenditure for students and Auxiliary Services, through good management, Auxiliary Services work hard to keep the cost to the student at the lowest possible cost. Currently "text book rental" is the new market force for the reduction of costs to students. It seems that e-books, iPads and Kindles are not taking over the market as we once thought they would. For example, the KCTCS has successfully outsourced its bookstore operations.

### **Duplicating/Printing**

Again, this service is both self-operated and outsourced at various institutions, depending on the level of services provided. This expense can be a large segment of an institution's budget.

Most institutions manage printing and duplicating internally. The result is centrally managing this function can be lower cost to the department and institution. Some larger institutions have opted to outsource these functions so that investment is not needed in equipment and trained staff and departments can take advantage of the many options provided. In many cases, proceeds from either self-operating or outsourcing are returned to the institution for funding of scholarships or returned to the central budget to fund other operating costs of the university.

New to institutions is the idea of "managed print services" which reviews the existing hardware and print habits of employees for possible cost savings. This review is in process at several institutions. NKU has recently signed a new "fleet copier management" program with Prosource. This is intended to reduce to zero the total number of printers, copiers, faxes, and scanners on campus. We continue to do our printing in-house as we feel the price and service is considerably better. The difficulty has become the capital expense involved in maintaining an up-to-date equipment fleet to provide these services.

At Morehead State University we have signed a new contract with Lynn Imaging/Commonwealth Technology to manage our document center and the fleet copier program. That operation is being shifted to Auxiliary Services from another division for better management.

### **Use of Technology**

As stated earlier, the final grade of the Auxiliary Services unit is a result of how well it is managed and how efficient it is. Use of technology is essential to achieve efficiency. Whether it is using the state-of-the-art POS system in the bookstore or using systems to deliver work order information to technicians in the field technology is a given.

Some examples of the use of technology include food service, vending, laundry services, building access, parking access, library, athletic event access, retail sales operations. At one institution, maintenance and custodial employees punch in for the day and receive work order information via handheld devices. This limits their trips back to the shop and adds to their daily productivity.

### **Parking and Transportation**

Students depend on this service as a given and funding for the services is usually flat and insufficient. Auxiliary Services professionals must be creative on how to operate this service, whether it is provided internally or contracted. Students are using bikes to get around campus and providing safe routes and bike racks are essential for campus safety.



Most parking operations are managed internally. More schools are looking for parking services to be operated as a true auxiliary and receive no funding from the central budget. For this reason, parking costs are going up annually causing auxiliary professionals to build business models which read more like a private sector operation and generate both operating and capital funding.

### **Dining**

Most, but not all, food service operations are contracted. Contracted services allow us to bring state-of-the-art food services operations to campus at the most reasonable prices. Additionally, food service operations return millions of dollars to the university to be used for operations or related capital expenses.

While there are self-op models on dining services that sustain themselves, contract options allow for volume buying power from suppliers that allows the universities to offer more consumer friendly dining options for the students and thus ease the financial burden on them.

### **One Card Operations**

The one-card operations not only issues ID cards to all employees and students at the university, it also functions as a secure, efficient method to pay for items and services both on and off campus using the debit account and meal plan features. The card also is used for access verification to the recreational center as well as various events on campus where verification is needed before participation can be allowed, such as athletic events, freshmen events, attendance, etc. This, of course, is in addition to the basic security of every student and employee carrying an official photo ID.

### **Privatized Student Housing**

The University of Louisville's 2020 Strategic Plan sets the goal to "increase the number of FTE students living on campus to 32% in 2020." To meet this challenge the University of Louisville has a long history of working with private developers to create affiliated housing opportunities while limiting the capital investment of the university. In total the university has four apartment style residence halls built and managed by Allen & O'Hara on University of Louisville land. Additionally the university enters into affiliation agreements with developers who build student housing on private land. The affiliation allows the university to create a seamless interface for the students to the property and, depending on the level of the agreement, the university may also provide on-site student support. These agreements allow the university to build a vibrant campus environment without having to put forward the capital investment to build the facilities.

In closing, Auxiliary Services can provide the institution options for efficient delivery of services and products that keep cost low and are required for the institution to achieve its goals.

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## **Council on Postsecondary Education, Kentucky Facilities Construction, Operations, and Management Productivity, Efficiency, and Cost Containment Summit**

### **Introduction/Simple Description**

The Council on Postsecondary Education, through collaboration with Kentucky institutions and the National Association of State Facilities Administrators (NASFA), is developing a white paper intended to identify ideas that, if implemented, may result in significant savings, productivity gains, and flexibility in the way programs and services are delivered on our campuses. The primary contributors to this paper are administrators of Kentucky's public postsecondary education institutions. NASFA is a collaborator that brings a broad spectrum of views from outside the college and university forum. NASFA is a professional organization whose mission is fostering communications and to provide leadership in the development and implementation of state facility administration practices and investigation of emerging trends.

The practices described herein are credible examples of cost saving opportunities that could help institutions fully and strategically utilize existing space and staff in an effort to reduce costs, respond to increased student enrollment or staff numbers, or provide increased access to existing programs or services. Consideration and implementation of these practices and others, as appropriate, would position our institutions to achieve greater efficiency and increase the value of the institution's services and programs.

### **Tax Regulations (Modification of Sales)**

Pursue the modification of tax regulations to allow flexibility for an institution to extend its tax exempt status to contractors that are engaged in projects on campus to generate capital project savings. Current law requires that all materials purchased by contractors for use on state funded capital projects be taxed at the normal sales tax rate. Materials purchased direct by and for the use of the state agency are exempt from state tax. When you consider a \$40 million capital construction project, the financial impact is significant. If you assume that of the \$40 million budget for a new building, \$34 million is in hard construction costs and half of that is material purchase, at 6 percent, the sales tax would be \$1,020,000. Most contractors add 15 to 20 percent profit and overhead to their actual cost which would include the sales tax; at 15 percent the cost of the tax to the project becomes \$1,173,000, a net loss to the state of \$153,000; and at 20 percent even more. In addition, the sales tax plus the profit and overhead has to be bonded as part of the project at a cost of 1 to 3 percent. All this becomes part of the debt financed by the Commonwealth or the university. Depending on interest rates and the term of the bond, the debt service alone could approach the amount of the tax revenue realized from the current practice.

Concern has been expressed that this application of the tax exempt status of state agencies could result in abuse by an unscrupulous contractor. Other states such as Ohio and North Carolina provide tax exempt status to contractors for material purchase associated with their construction contracts successfully. To help limit opportunity for abuse, tax exemption forms could be sent directly to contractors identified material suppliers or the exemption forms provided to contractors could have very short durations and be identified with specific projects.

### **Group/Consortia Purchasing of Energy**

The idea is that by aggregating demand, a consortium of public and private sector nonprofit organizations could combine their purchasing power to bargain for competitive pricing for natural gas, fossil fuels, and electricity. Collectively, such groups would represent significant coal, electrical demand, and purchasing power in Kentucky. The group's purpose would be to consolidate enough purchasing demand for renewable energy to stimulate utilities to invest in renewable energy generation or savings in all regions of Kentucky. If there were an agreement with utilities, each participating organization could contract separately with the utilities for renewable energy at a level determined by that organization. The strategy would be to allow participants to commit a portion (or all) of their energy purchases to renewable sources, until the total load of the participants reaches a point at which the utility(s) could source renewable energy the participating utility. There is a potential to lock in energy prices under a long-term contract (based on long-term demand) and provide a hedge against fuel price increases going into the future.

These options can be done locally, statewide, or regionally. Renewable energy development in Kentucky as a part of the consortia approach may contribute to many city, county, and state policy goals including sustainable economic development, job creation, an increased tax base, greater energy independence, stabilizing uncertain future energy prices, relevant research and curriculum topics, the community's effort to reduce carbon emissions, and a better quality of life for area residents. Some examples:

**Wisconsin:** A centralized purchasing authority for the State of Wisconsin helps lower costs through large-volume purchases. Cooperative purchasing provisions make these same benefits available to counties, cities, school districts, and utility districts. An Internet site (<http://vendornet.state.wi.us/vendornet/default.asp>) gives all these jurisdictions, as well as vendors, easy access to new bids, current contracts, etc. Division of Energy staff monitor this Web site and follow up with purchasing agents on bid requests where there is a potential to incorporate ENERGY STAR requirements. Even if it is sometimes too late to change the current bid request, this is a way to educate specifiers and purchasers and alert them to future opportunities to incorporate energy-efficient specifications. Wisconsin adopted its first energy-efficient purchasing requirements for motors, compact fluorescent lamps (CFLs), and light-emitting diode (LED) exit signs in the early 1990s. After initially focusing on statewide purchasing through the Division of Energy (DOA), the DOA began to reach out to the University of Wisconsin to help incorporate energy efficiency in ongoing programs.

**New York State and New York City:** New York State's energy-efficient purchasing initiative is guided by both administrative policy and legislation. Section 5-108-A of the New York State Energy Law (9/2000), directs the New York State Energy Research and Development Authority (NYSERDA) to establish minimum efficiency standards for state purchasing. The following year, Governor Pataki issued Executive Order No. 111, "Green and Clean State Buildings and Vehicles" (<http://www.nyserda.org/exorder111guidelines.pdf>) as part of an integrated statewide energy plan and policy.

State agencies were directed to work with local governments and schools to voluntarily adopt energy efficiency standards. Underlying policy objectives include: a) reducing state government operating costs, b) improving facility operations, management practices, and reliability, c) increasing knowledge and use of high-efficiency products, green construction practices, and renewable energy, d) reducing summer peak demand with the state's newly deregulated utility market, and, e) strengthening the state economy by reducing the long-term tax burden and lowering economic dependence on oil and other imported fuels. The New York State Office of General Services (OGS) is the state's primary procurement arm. Local governments and eligible not-for-profits can also access state procurement contracts.

### **Kentucky LEED Standards**

Experts recommend the use of LEED standards for construction and to commission buildings as they are constructed or renovated and also, recommission buildings at the conclusion of construction to ensure that expected and intended savings are realized. The 2008 General Assembly enacted legislation and in 2009 administrative regulations were put in place to implement High Performance Building Standards. For example, in 2009 these standards were used to inform the development of a green building policy at Northern Kentucky University. The specific LEED standard applied to a project is related to the budgetary scope of a capital project i.e., all new construction and all major renovation projects with a budget of \$25 million or greater shall be designed, built, and submitted for certification at the LEED Silver level or higher. The NKU policy directs that renovation projects with lesser budgets are guided by or designed to LEED standards but certification, while desirable, is not mandated. The NKU policy is provided to design firms through its Facility Management Building Standards document which guide the work of consultants as they seek to assist the university to implement capital projects.

As part of the design process, life cycle costing analysis is being implemented for all major building systems that are proposed. The policy requires that the life of equipment and its maintenance needs to be analyzed along with systems energy consumption. This policy then informs decisions on the selection and installation of building systems. Further, the policy requires all new buildings and major renovations are to be fully commissioned by an independent commissioning agent upon completion. The role of the commissioning agent is to ensure that major building systems are installed correctly, adjusted and programmed properly, and operating as designed. The commissioning process is a much more in-depth testing of building systems than previously conducted at the point of building acceptance. Every HVAC component's operation is validated, electrical system tested, and other specialized building systems operation confirmed. The commissioning process ensures the building and its systems are operating as efficiently as possible and can actually improve the design parameters.

Consideration is being given to recommissioning existing buildings at some reasonable interval. As buildings age and repairs are accomplished, it is not uncommon for the operating parameters of the systems to be changed or to drift from the original design. While facilities maintenance organizations try to limit these changes in system operation they inevitably occur. Over time building efficiency declines and it is possible to achieve an improvement in efficiency of 10 percent or more through recommissioning. The Kentucky High Performance Building Standards are found at:  
[http://finance.ky.gov/NR/rdonlyres/37B22621-305F-4680-9EDD-ECA17FCDFF5/0/FILED200KAR6\\_070E21809.pdf](http://finance.ky.gov/NR/rdonlyres/37B22621-305F-4680-9EDD-ECA17FCDFF5/0/FILED200KAR6_070E21809.pdf).

## **Renovation versus Building New**

Are there times that renovating an existing structure is a better decision than building a new structure and keeping the old one without modification or demolition? The answer to this question really is associated with the value and condition of the existing structure and its suitability for the intended purpose. One could actually spend considerably more meeting current code, accommodating the structure in room redesigns, and finding ways to route HVAC, electrical, data cables, etc. For example, NKU's concrete structures are certainly candidates for renovation. However, the needed space might not work in the existing building or a function cannot relocate until after the new space becomes available. Repurposing the existing building may become a priority after new space is constructed. If an institution has a space deficit, identifying a suitable use for vacated space would not be a difficult task.

## **Quarterly Forums**

In a collaborative fashion, the coordinating board and institutions should routinely organize a quarterly forum for Kentucky's chief facilities officers to promote better sharing of information and resources. Institutions are engaged in various strategies that are intended to produce savings or to contain costs in their operations of facilities, construction, renovation programs, and consumption of utilities. All institutions face similar issues in the administration of the capital assets and quarterly forums will provide an opportunity to discuss facility issues and share successful approaches to problems. The forums also provide institutions and the coordinating board an opportunity to join forces in a variety of ways to reduce supply costs, share expensive but infrequently used maintenance equipment, and to share best practices. While the forums are suggested by public institutions, it will also be open to private and independent colleges and universities. For example, the University of Kentucky is evaluating custodial needs (i.e., what should be cleaned and to what degree/how many staff needed) and after completion of the study the results might be shared with the forum. The information sharing could save other institutions that are considering similar strategies some basic costs associated with similar studies.

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# **Council on Postsecondary Education, Kentucky**

## **Facilities Construction, Operations, and Management**

### **Productivity, Efficiency, and Cost Containment Summit**

#### **Introduction**

The Council on Postsecondary Education, through collaboration with Kentucky institutions and the Society of College and University Planning (SCUP), is developing a series of white papers intended to identify ideas that, if implemented, may result in significant savings, productivity gains, and flexibility in the way programs and services are delivered on our campuses. The primary contributors to this paper are administrators of Kentucky's public postsecondary education institutions. SCUP is a collaborator that brings a view from a broad spectrum of institutions outside the Commonwealth of Kentucky.

The Society for College and University Planning is a professional organization that provides its members with the knowledge and resources to establish and achieve institutional planning goals within the context of best practices and emerging trends.

The practices described herein are credible examples of cost saving opportunities that could help institutions fully and strategically utilize existing space and staff in an effort to reduce costs, respond to increased student enrollment or staff numbers, or provide increased access to existing programs or services. Consideration and implementation of these practices and others, as appropriate, would position our institutions to achieve greater efficiency and increase the value of the institution's services and programs.

In facilities operations and management there are degrees of collaboration that, early on, often influences buy-in for new policy development and implementation. These influences are easily detected in projects through their procurement and contracting process or policies through the engagement of staff and students to embrace the ideas and assist with development. Thus, owners and managers establish the baseline for the level of integration/collaboration that they may expect on each project or policy change by gauging the benefit to trying to establish a higher level of collaboration or buy-in versus the tradeoffs. Following are some ideas that might be considered as help-mates for collaborative efforts to increase productivity and efficiency and help to contain or lower costs.

#### **Sustainability**

In the face of economic realities and in parallel to the momentum building to 'green' the campuses, efforts to achieve a greater level of operating efficiency are gaining traction on our campuses. Some examples:

*Centralizing equipment (printers) to reduce energy use, acquisition costs, maintenance and supplies:* Consistent with meeting the goal to go paperless, some campuses are moving toward a policy which restricts the use of personal printers, instead relying on scanners, email attachments and centralized, efficient, high-volume printers which function at a lower cost per page. Industry standard cost for individual printers is about 10 cents per page and five cents per page for central printers. There is an opportunity to contain and reduce expenses by 30-50 percent with a policy restricting the use of individual printers. An example used by an institution (Duke University) in another state is provided at [http://sustainability.duke.edu/news\\_events/items/2009\\_11\\_23BldgTemp.html](http://sustainability.duke.edu/news_events/items/2009_11_23BldgTemp.html).

*Transforming building occupant behavior:* Using the concept of personal responsibility, some institutions are instituting policies to help reduce operating costs by restricting, to some extent, student and staff use of individual equipment (portable space heaters, microwave ovens, refrigerators, etc.). This and similar approaches could produce significant savings. For example, the University of Louisville space heater policy requires all new heaters to meet specific energy standards. Policy link: <http://louisville.edu/firesafety/policies/spaceheaters.html>.

*Alternatives to reduce new construction:* One example is presented by the University of Louisville with the renovation of the Duthie Center, 34,000 square feet, to achieve LEED Gold. The project repurposed Kersey Library into a multi-purpose building to house the Speed Engineering School Career Services Center, student common areas, teaching laboratories and classrooms, and the Department of Computer Engineering and Computer Sciences. The renovated facility uses 54 percent less water, its high efficiency HVAC system is projected to save 30 percent on energy, 27 percent of the construction materials are recycled content and 31 percent were extracted, harvested, or manufactured regionally. The UofL information is found at <http://louisville.edu/uofltoday/campus-news/duthie-center-for-engineering-earns-gold-for-energy-design>.

Duke University has sought to reduce new construction by optimizing use of existing class space (online contact hours, stretching hours scheduled) and office (telecommuting, hoteling-shared stations). Also, Duke University encourages flexible work options, considers telecommuting to be a viable alternative to working from a central campus worksite in cases where the characteristics of the employee, supervisor, and work are compatible with such an arrangement, and the physical environment, equipment, and technology are adequate to support it. In some cases, departments may agree to support some or all of the costs of an off-site office, including additional telephone lines, telephone use charges, and Internet Service Provider (ISP) charges. Employees can work with their manager to establish a telecommuting arrangement.

### **High Performance Buildings**

In 2008, the State of Georgia passed the Energy Efficiency and Sustainable Construction Act. Since that time, a task force developed procedures and guidelines for future building construction. These include all major facility projects being designed and built to achieve a 15 percent reduction in water use and to exceed the standards set in ASHRAE 90.1-2004 by 30 percent.

The 2008 Kentucky General Assembly enacted HB 2 (the green buildings legislation), which applies to new construction and renovations and requires agencies to incorporate LEED standards as the beginning point for project implementation. The legislation also created a permanent group the “High Performance Buildings Advisory Committee” to assist the Finance and Administration Cabinet in developing the criteria for encouraging the use of green initiatives. More information regarding the Kentucky high performance standards is provided at: <http://finance.ky.gov/HPBAC.htm>. All Kentucky institutions including the KCTCS design new construction and renovations to LEED standards.



*The Kentucky legislation provides that:*

Beginning July 1, 2009, all construction or renovation of public buildings for which 50 percent or more of the total capital cost is paid by, the Commonwealth shall be designed and constructed, or renovated, to meet high performance building standards. All building leases entered into by the Commonwealth after July 1, 2018, shall meet the high performance building standards. A high performance building is defined " as a public building that is designed, constructed, and capable of being operated in a manner that: a) increases environmental performance and economic value over time, b) safeguards the health of occupants, c) enhances satisfaction and productivity of workers through energy efficient systems, d) incorporates environmentally friendly materials and products, and e) reduces waste." The legislation makes recommendations about standards, benchmarks, and guidelines including Energy Star, Green Globes, and Leadership in Energy and Environmental Design (LEED); and, supports conducting an ongoing professional development program for state and local building designers, construction companies, school districts, building managers, and the general public on high performance building design, construction, maintenance, and operation. Kentucky High Performance Building Standards: [http://finance.ky.gov/NR/rdonlyres/37B22621-305F-4680-9EDD-ECA17FCDF5/0/FILED200KAR6\\_070E21809.pdf](http://finance.ky.gov/NR/rdonlyres/37B22621-305F-4680-9EDD-ECA17FCDF5/0/FILED200KAR6_070E21809.pdf).

### **Traffic Demand Management**

Consider further implementation of Traffic Demand Management (TDM) concepts to help depress the demand for increased investments in parking capacity. TDM concepts include a range of options from increased use of mass transit, carpooling, car-sharing programs, and biking, as well as increased parking fees to incentivize alternative travel modes freeing land that would have been used for more parking for more productive uses. Additionally, some institutions have carpool incentive programs or are developing such programs and most institutions operate a shuttle or contract with the local transit authority to operate such a service. Some examples are:

If available, agreements with local public transportation agencies to provide transportation to students at a reduced rate or free – saves students money, reduces strain on campus parking, parking security, etc. Examples are the University of Louisville and Northern Kentucky University. The University of Louisville has an agreement with Transit Authority of River City (TARC) to provide free rider service, with university identification. The university regularly meets with TARC to review route information and is currently evaluating an intra-campus route that will serve both the university and the larger community. The free rider service is available (24 hours each day, seven days each week) to students, staff, and faculty with university identification. This option reduces the number of cars on campus and lessens the pressure to create additional parking.

The Northern Kentucky University program with Transit Authority of Northern Kentucky (TANK) allows any student, faculty, or staff member, with a valid NKU identification card, to ride any TANK route, 24 hours each day, seven days each week, for free. TANK ridership by NKU faculty, staff, and students has increased substantially in each year of the three year old program. Despite an approximate 950 headcount increase in faculty, staff, and students over a two-year period, parking demand as measured by a peak car count resulted in a net increase of only 200 cars on campus.

Another program at the University of Kentucky with the potential to reduce congestion and demand for new parking is a partnership to provide a car-sharing service on campus. These programs provide members of the campus community who choose to commute to work via alternative transportation with the convenience and security of a having a personal vehicle. The check-in and check-out processes are highly automated and are often handled by the private company providing the vehicles. Users are typically charged a flat hourly rate which covers fuel, insurance, and mileage.

Another example of an effective policy to reduce cars on campus through agreements with local transit for passes, rewards for carpool, bike, zipcars, etc., was implemented by Duke University. The policy:

- a. Provides significant resources and incentives for students, faculty, and staff to utilize alternative transportation options rather than driving alone.
- b. Provides fare, free, accessible transportation on campus and in some neighboring areas through Duke Transit buses and vans. Duke operates over 30 buses on more than a dozen routes serving east, west, central, and the hospital campus.
- c. Parking and transportation services offer discount city and regional bus passes at a savings of up to 60 percent for students, staff, and faculty.
- d. Provides the following incentives to carpoolers:  
Four or more participants get free parking in a preferred lot. Each member receives 12 daily passes for access to each group's preferred lot and 12 for any remote lot. Three participants pay \$4 monthly per person. Each member receives 12 daily passes for access to each group's preferred lot and 12 for any remote lot. Two participants each pay half of the annual permit price for access to a preferred lot. Rideshare commuters park in regular spaces not in designated carpool spaces. Each member receives 12 daily passes for access to each group's preferred lot and 12 for any remote lot.

An online carpool matching service through GreenRides help faculty, staff, and students find carpool partners - <http://portal.greenride.com/duke/home.aspx>. Provide free or heavily discounted parking based on the number of participants in the carpool, spaces in preferred lots, and reserved spaces for carpoolers.

Many of the highly trafficked roads on Duke's campus have bike lanes. Duke Bikes is a free bike-share program on campus with a fleet of over 130 bikes. Students can reserve a bike online or at the centrally located bike shop. The program's average usage is 100 bikes a day. Additionally, registered bike commuters receive 24 free parking passes to use on days when they are unable to bike.

*Emergency Ride Home:* Commuters who regularly participate in alternative transportation options such as riding a bus, using vanpool, carpooling, biking, or walking are eligible for an emergency ride home through Triangle Transit. The program provides a free voucher for a taxi or a rental car.

## **Utilization**

Some ideas in this area that are being considered are:

- a) Modify policies regarding use of buildings during the weekend, holidays, and breaks to limit the number of buildings in use at those times to save energy and custodial costs.
- b) Modify policies to possibly close the entire campus over long breaks to save energy, custodial, security, and other costs.
- c) Modify policies to support stretching the instructional week to incorporate more online instruction and other flexible instructional options. One institution, Northern Kentucky University, has worked to optimize its weekly room hour use and station utilization and has many late afternoon and evening classes. Over the last year, this effort has been taken to a new level with an effort to educate the campus community about the opportunities to further improve classroom utilization. For fall 2010, NKU has 13 hybrid classes (meaning they meet face to face as well as online), and there are approximately 345 online classes. The university has retained the services of an external consultant (study underway) to help analyze current facilities use.

Other institutions may choose to utilize a hybrid approach by increasing the use of online instruction. Efficiencies could be gained in cost of construction, energy, custodial, and other cost centers. To determine the potential impact of reducing 'on site' seats (offering credits online) an institution could use the following example, using a space factor of .96 and 100,000 Weighted Student Credit Hours (WSCH) as a base for a campus, this should yield a need for approximately 96,000 assignable square feet (asf) or 147,692 gross square feet (gsf). If 10 percent of these WSCH were offered online, then approximately 14,763 gsf could be saved; thus, using a construction cost of \$200 / gsf, the savings could be \$2,953,000. One Kentucky institution, the University of Louisville is currently studying opportunities to implement the concept of hybrid classes.

- d) Coordinate building use/scheduling by creating central scheduling program with the academic side of the organization to streamline building and room use – leads to energy savings, better utilization of rooms, and buildings.

## **Energy Use/Savings (ESCOs)**

Using ESCOs (third parties) or institutionally funded energy savings projects to secure immediate and long-term savings and upgrades in buildings. All Kentucky institutions including the KCTCS currently have energy performance savings contracts.

The University of Louisville (ESCO) is moving quickly to achieve a greener, more sustainable future for its Belknap Campus with the help of a comprehensive, \$21.7 million energy and resource efficiency improvement project delivered by the Building Technologies Division of Siemens Industry, Inc. The campus-wide effort, among the largest of its kind in the region, is on a fast track – one that when finished will significantly lower its overall carbon footprint and realize enough energy savings to reduce equivalent energy costs by more than \$2.3 million annually. For more detail on the project: <http://louisville.edu/energysavings/>. The university is also exploring/evaluating additional options for energy savings at the Health Sciences, Shelby Campus and some remaining Belknap Campus locations.

Other Kentucky institutions are engaged in ESPC projects including Eastern Kentucky University, Kentucky State University, Morehead State University, Murray State University, Northern Kentucky University, University of Kentucky, and Western Kentucky University. The Kentucky General Assembly enacted law that supports and encourages ESCO activity and created an executive branch entity to assist government agencies, including colleges and universities, to implement contracts with ESPC or internally generated programs to generate greater energy efficiencies.

### **Construction and Renovation of Facilities**

Use green building/LEED construction for long-term savings. Kentucky has statutory provisions for minimum LEED design/construction. An example of the impact of this law is described above in the section related to construction, the University of Louisville policy:

<http://louisville.edu/updc/sustainability/leed.html> .

A slightly different approach was taken by Clark Atlanta University. Clark Atlanta University had estimated that the total utility savings (gas, water, electricity) realized after renovation would be between 15 percent and 20 percent. The facility continues to run under budget. On the conversion of Clement Hall, Clark Atlanta University had options as to how to increase their 'assignable' space - either build it new or convert non-assignable space in an existing facility. If we look at it purely from the point of view of cost of construction: renovation cost was about \$170; new construction cost today is \$220 to \$240. So, you are getting the space at somewhere between 71 percent and 78 percent of new construction. This does not include any other operating benefits that you may be realizing.

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The Council on Postsecondary Education is charged with leading the reform efforts envisioned by state policy leaders in the Kentucky Postsecondary Education Improvement Act of 1997. The Council has multiple responsibilities to ensure a well-coordinated and efficient postsecondary and adult education system. Among its many responsibilities, the Council:

- Develops and implements a strategic agenda for the postsecondary and adult education system that includes measures of educational attainment, effectiveness, and efficiency.
- Produces and submits a biennial budget request for adequate public funding of postsecondary education.
- Monitors and approves tuition rates and admission criteria at public postsecondary institutions.
- Defines and approves all academic programs at public institutions.
- Ensures the coordination and connectivity of technology among public institutions.
- Collects and distributes comprehensive data about postsecondary education performance.
- Licenses all nonpublic, degree granting colleges that operate in the state.
- Administers the state's Adult Basic Education program and GED Testing Service.

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# THE SIX GOALS OF HB 1

1 A seamless, integrated system of postsecondary education strategically planned and adequately funded to enhance economic development and quality of life.

2 A major comprehensive research institution ranked nationally in the top 20 public universities at the University of Kentucky.

3 A premier, nationally recognized metropolitan research university at the University of Louisville.

4 Regional universities, with at least one nationally recognized program of distinction or one nationally recognized applied research program, working cooperatively with other postsecondary institutions to assure statewide access to baccalaureate and master's degrees of a quality at or above the national average.

5 A comprehensive community and technical college system with a mission that assures, in conjunction with other postsecondary institutions, access throughout the Commonwealth to a two-year course of general studies designed for transfer to a baccalaureate program, the training necessary to develop a workforce with the skills to meet the needs of new and existing industries, and remedial and continuing education to improve the employability of citizens.

6 An efficient, responsive, and coordinated system of providers that delivers educational services to all adult citizens in quantities and of a quality that is comparable to the national average or above and significantly elevates the level of education of the adults of the Commonwealth.

